

### **REMARKS**

In the Office Action, claims 9-11 were pending, with all claims being rejected under 35 U.S.C. §103. By this Amendment, claim 9 has been cancelled, new claim 12 has been added, and claims 10 and 11 have been amended. No new matter has been added. Claims 10-12 are pending in the application.

### **Claims Rejections – 35 USC § 103**

In the Office Action, claims 9-11 were rejected under 35 U.S.C. §103, as being unpatentable over U.S. Patent No. 4,567,458 issued to Englund (hereinafter “Englund”) and further in view of U.S. Patent No. 6,642,460 to Dunne et al. (hereinafter “Dunne”). According to the Office Action:

Englund teaches a printed circuit board (40) but does not explicitly teach the board having printed traces (or “routes”) connecting the various electronic components. However, Dunne et al. teaches that it is known to use a circuit board (11) with routes (23) that electrically connect holes (19) and terminals (9) of a switch (1) (see Figs. 1-4). It would have been obvious to one having ordinary skill in the switch art at the time the invention was made to have formed electrically conductive routes on the circuit board of Englund, since Dunne et al. states at col. 3, lines 3-44 that such a modification would have allowed for electrical connection between the openings on the board and electrical components (21) mounted on the board, while also allowing for a plug-in electrical connection. This would have improved the manufacturing of the switch as well as the electrical connection between components, thereby allowing for improved operation.

Claim 9 has been canceled. New claim 12 (from which claims 10 and 11 depend) is drawn to:

Claim 12: A bimetallic thermostat with exchange contacts comprising:  
an external support covering; and  
an internal device comprising:  
a pierced base provided with a packing and with electric contacts on one side for electric connection with the outside of the bimetallic thermostat,  
wires electrically connected with said electric contacts and extending from an opposite side of said base;  
a relay arranged at said opposite side of the base and electrically connected with said base,  
a sensitive thermostatic element provided with feet permanently electrically connected with said relay,  
an insulating plate physically interposed between the relay and the sensitive thermostatic element,  
a printed circuit provided on one face of said insulating plate and comprising passing-through slots for housing the feet of the sensitive thermostatic element, first holes for receiving ends of said wires opposite to said electric contacts, second holes for fastening of the relay, first routes for electrically connecting said first holes with said second holes and second routes for electrically connecting said second holes with said slots while maintaining electrically separated said slots and said first holes so that the insulating plate prevents electrical interferences between said feet of the sensitive thermostatic element and said wires.

Claims 10-12 as amended herein are patentable over the combination of Englund and Dunne because the combination does not yield a *prima facie* case of obviousness as the combination of references does not teach or suggest all the claim limitations present in claims 10-12 as amended herein. For example, new claim 12 requires that the feet of the sensitive thermostatic element are permanently electrically connected to the relay. In contrast, in the arrangement disclosed in Englund, the foot 18 is electrically insulated from the relay 26 and the foot 22 is electrically connected to (Figs. 4 and 6 of Englund) or separated from (Figs. 3 and 5 of Englund) the relay 46 according to the state of the sensitive thermostatic element 14. As another example, new claim 12 recites an insulating plate that is physically interposed between the relay and the sensitive thermostatic element and a printed circuit is provided on one face of the insulating plate,

while in Englund, no insulating plate is provided and the element 40 is a circuit board electrically connected with a conductive plate 32. In a further example, new claim 12 requires that the slots for housing the feet of the sensitive thermostatic element are passing-through slots which allow the feet of the sensitive thermostatic element to reach the printed circuit on the one face of the insulating plate, while passing-through holes are not disclosed or suggested in Englund. In yet another example, the printed circuit of the thermostat of new claim 12 includes first routes for electrically connecting the wire receiving holes with the relay fastening holes with the fee receiving slots while maintaining electrically separated the feet receiving slots and the wire receiving holes so as to prevent electrical interferences between the feet of the sensitive thermostatic element and said wires. In stark contrast, similar routes are not disclosed or suggested in Englund. These differences between the presently pending claims and the teachings of Englund are not compensated by Dunne, which merely discloses slotted connections between an electric component and a circuit board and does not provide teachings for selectively electrically connecting specific slots and maintaining electrically separated slots for wires and sensitive thermostatic element.

The presently claimed arrangement provides benefits not provided by the cited references. In particular, the claimed arrangement can selectively electrically connect specific slots and maintain electrically separated slots for wires and a sensitive thermostatic element, and prevent the short circuit of the relay or the incorrect operation of the relay with the consequent incorrect output signals through the external feet. *See* Specification, page 2, ln. 28 – page 3, ln. 2. Applicant respectfully submits that the cited references do not disclose or suggest such an arrangement. Accordingly, Applicant respectfully requests that the rejection based on Englund and Dunne be withdrawn.


### **Conclusion**

As the cited references do not disclose or suggest the subject matter of the independent claim, the independent claim is believed to be allowable. In addition, the dependent claims are believed to be allowable due to their dependence on an allowable base claim and for further features recited therein. The application is believed to be in condition for immediate allowance. If any issues remain outstanding, Applicant invites the Examiner to call the undersigned (direct line 561-838-5229) if it is believed that a telephone interview would expedite the prosecution of the application to an allowance.

Respectfully submitted,

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